IMPACT OF EXTERNAL DEBT ON ECONOMIC GROWTH IN NIGERIA: THE MODERATING ROLE OF INSTITUTIONAL QUALITY

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ABSTRACT
This research examines the impact of external debt on Nigeria's economic growth between 1986 and 2024, with a specific focus on the role of institutional quality. The analysis carried out with the Fully Modified Least Squares (FMOLS) method indicates that both external debt and debt servicing are linked with slower growth. However, the relationship is not statistically significant. In simple terms, borrowing alone does not guarantee improved economic performance. On the other hand, institutional quality exerts a clear and significant positive impact on economic growth, indicating that good governance, effective legal systems, and reduced corruption are central to long-term development. Government capital expenditure also appears to support economic growth, but its effect is weak and statistically insignificant, which may reflect the challenges in turning investments into real growth. Notably, the interaction between external debt and institutional quality is positive and significant, indicating that robust institutions can offset the growth-limiting effects of debt. Overall, the findings highlight that external debt can only be beneficial if backed up with strong institutions and prudent resource management. Based on this, the study recommends that Nigeria focus on improving institutional frameworks, enhancing the effectiveness of investments, and managing debt wisely to foster sustainable economic growth.

Keywords: External debt, Institutional quality, Economic growth, Debt servicing, Nigeria, FMOLS.
JEL Codes: F34, O40, H63, C22, E02

1. INTRODUCTION
In most developing economies, Nigeria included, external debt has become a common tool for meeting development needs and filling gaps in government budgets. What remains unsettled, however, is whether such borrowing actually promotes long-term growth by financing infrastructure, investment, and development. And others believe it may hurt growth by creating heavy repayment burdens, debt overhang, and mismanagement risks. While some writers argue that, when properly managed, debt can support economic development, others warn that in the absence of strong institutions, it may create more harm than good (Amu et al., 2025; Akinola & Ohonba, 2024).

Nigeria's case captures this dilemma well. Over the years, the country has increasingly turned to external loans to finance infrastructure, education, and social welfare projects. Records from the Debt Management Office (2024) indicate that external debt rose to about $43 billion by 2024. Although this demonstrates a commitment to meeting development needs, it has also raised questions about whether such borrowing is yielding real growth (Ebhotemhen & Victor, 2024). Some scholars find a positive link between debt and growth, especially when funds are invested in productive activities like capital formation (Ojonye et al., 2024). Others point out that the heavy burden of servicing debt reduces the resources available for vital sectors, which can in turn slow economic progress.

More recently, attention has shifted to the role of institutions in shaping this relationship. Strong institutions, those that ensure transparency, accountability, and effective policy execution, are more likely to enhance the benefits of external borrowing (Ubi & Eba, 2018). In contrast, where institutions are weak, borrowed resources may be mismanaged, leaving little room for meaningful development even when loan volumes are high.

Despite the vast literature on the debt–growth connection, limited work has been done on how institutional quality moderates this link in Nigeria. This study therefore seeks to fill that gap by empirically examining the impact of external debt on Nigeria's economic growth, while assessing how institutional quality shapes this relationship over the period 1986–2024.

The main objective of the paper is to determine whether strong institutions can offset the potential growth-limiting effects of external borrowing.

The rest of the paper is organized as follows: Section 2 reviews the relevant literature, drawing on both theoretical and empirical studies up to 2025. Section 3 presents the methodology, including the theoretical framework, model specification, data sources and estimation procedure.

Section 4 discusses the empirical results and links them to recent evidence from Nigeria and other economies. Finally, Section 5 concludes with policy recommendations targeted at Nigerian economic policy makers.

2. LITERATURE REVIEW

2.1 Conceptual Issues

2.1.1 External Debt

External debt is the outstanding stock of obligations that a country owes to non-resident creditors including bilateral lenders, multilateral institutions (e.g., IMF, World Bank) and private foreign creditors. Governments typically borrow externally to finance infrastructure, stabilize public finances or close budgetary gaps. The economic consequences of such borrowing depend critically on how funds are allocated, the terms of borrowing, and the institutional environment that governs public resource use. Recent Nigerian studies emphasis these nuances: while external loans have financed some productive projects, weak implementation and poor oversight often blunt their developmental impact (Bashir, 2019; Ebhotemhen, 2020). Ashakah et al. (2025) note that external debt encompasses both short-term and long-term loans, with implications for the broader economy, particularly in terms of fiscal balance and debt sustainability.

For this study, external debt is taken to mean the stock of outstanding obligations a country owes to non-resident creditors, whether bilateral, multilateral, or private. The impact of such debt on the economy is not automatic; it depends mainly on how effectively the funds are used and how repayment is handled. In situations where loans are carefully managed and supported by a stable institutional framework, external debt can contribute to growth. Conversely, where institutions are weak or funds are poorly utilized, the same debt becomes a drag on development rather than a support for it.

2.1.2 Economic Growth

Economic growth is commonly measured by increases in real GDP and reflects improvements in productive capacity, capital accumulation, and productivity. Studies on Nigeria stress capital formation, investment quality and policy stability as key growth drivers (Jacob & Sule, 2022; Ojonye et al., 2024). Where borrowing supports genuine investment in productive capacity, growth can be stimulated; where borrowing mainly services consumption or is mismanaged, the growth payoff is muted. Recent JEAR findings on Nigeria's experience with debt and investment add useful country-specific evidence to this point (Yusuf et al., 2024).

For this research, economic growth is understood as the consistent expansion of Nigeria's real GDP over the years, reflecting improvements in productive ability, capital investment, and the role of policy in supporting broader national development.

2.1.3 Institutional Quality

Institutional quality refers to how strong and effective a country's governance and administrative systems are. Amu et al. (2025) define it as the capacity of institutions responsible for upholding the rule of law, curbing corruption, and executing policies to foster stability and development. According to Ele and Ocheni (2025), sound institutions are essential for attracting investment, ensuring efficient resource management, and maintaining policy consistency. Ogonegbu and Kagwaini (2025) also argue that institutional quality shapes how well public bodies design and enforce governance mechanisms that encourage accountability, transparency, and economic growth. In this study, institutional quality refers to the credibility, reliability, and overall effectiveness of Nigeria's political and administrative institutions, particularly in their ability to sustain growth through transparent governance and stable policy implementation.

Up-to-date empirical work for Nigeria and the ECOWAS region shows that poor governance frequently reduces the developmental returns from borrowing and can even turn debt into a growth drag (Rufai & Dakyong, 2024; Nwala & Saleh, 2023).

2.2 Empirical Review

The evidence on how external debt shapes Nigeria's economic growth remains far from uniform. Different studies highlight different outcomes, often depending on the country's fiscal practices, the policy environment, and the strength of its institutions. What does seem clear, however, is that debt only tends to deliver positive results where governance is strong and resources are carefully managed. In contrast, weak accountability often turns borrowing into a liability rather than a development tool.

Ele and Ocheni (2025), for instance, found through a panel analysis that while external loans have made some contribution to infrastructure, the benefits have been diluted by corruption and poor institutional systems. Similarly, Amu et al. (2025), employing the Generalized Method of Moments (GMM), argued that the presence of strong institutions can cushion the adverse effects of debt, underscoring that governance quality is central to debt outcomes.

The investment side of the debate has also received attention. Ebhotemhen and Victor (2024), using a Structural Vector Autoregression (SVAR) model, showed that rising debt-to-GDP ratios tend to crowd out private investment and limit capital formation. Akinola and Ohonba (2024) reached a similar conclusion, noting that while foreign direct investment often fosters growth, a growing reliance on external debt ultimately hinders long-term performance.

More recent studies have gone further in linking institutional capacity to debt outcomes. Eze et al. (2023) reported that external debt reduces growth, particularly when governance is weak and fiscal discipline is lacking. Yusuf and Mohd (2023a) added that during downturns, the drag from debt becomes more severe, but argued that improvements in debt management frameworks could help reduce this risk. On a broader African scale, Daba Ayana et al. (2023) emphasized that weak institutional settings across sub-Saharan Africa amplify the harmful

effects of borrowing, with Nigeria standing out as a case in point. Consistent with this, Didia and Ayokunle (2020) suggested that external borrowing may be even more damaging than domestic debt when institutional quality is low.

Other recent work emphasises the interaction between institutions and debt. Rufai and Dakyong (2024) show that corruption moderates the effect of external loans in ECOWAS contexts, while Nwala and Saleh (2023) provide evidence that improvements in institutional indicators help to unlock the growth potential of borrowing. Cross-country studies likewise highlight that public-sector management and debt governance determine whether debt is growth-enhancing or growth-constraining. Taken together, the literature suggests three important lessons for Nigeria: (i) the effect of external debt is conditional on institutional quality; (ii) debt composition and debt-service obligations matter; and (iii) long-run analysis that spans multiple policy regimes is necessary to capture structural shifts.

Earlier contributions echo these findings. Omodero and Alpheaus (2019) showed that external loans often undermine Nigeria's economic performance, where governance systems are fragile. Elom-Obed et al. (2017) and Ndubuisi (2017) also linked poor debt outcomes to high servicing obligations and inefficiencies in financial management. Likewise, Udeh et al. (2016) concluded that without accountability and fiscal prudence, debt becomes a drag on growth rather than a source of support.

Altogether, the empirical record points to one recurring theme: the impact of external debt is shaped less by the amount borrowed and more by the institutional and policy environment in which it is managed. Despite this recognition, relatively few studies have explicitly treated institutional quality as a moderating factor in Nigeria's debt–growth relationship. Most mention governance issues only in passing or examine them separately. In addition, little work has been done over a long horizon that captures Nigeria's shifting political and economic landscape. This study aims to address this gap by examining how institutional quality affects the debt–growth nexus in Nigeria between 1986 and 2024.

3. METHODOLOGY

The study adopts a time series research design to investigate the effect of external debt on Nigeria's economic performance, while explicitly accounting for the influence of institutional quality. It describes the study design, model specification, data sources, and measurement of key variables. A time series econometric technique, Fully Modified Ordinary Least Squares (FMOLS), is employed to ensure robust long-run estimation, considering the potential non-stationarity of macroeconomic variables.

3.1 Theoretical Framework

This study is anchored on the Debt Overhang Theory, which explains how excessive external debt can negatively affect economic growth. First introduced by Krugman (1988) and later expanded upon by Sachs (1989), the theory posits that once a nation's debt exceeds a sustainable level, expectations about future repayment begin to discourage investment. The logic is straightforward: both local and foreign investors assume that future earnings will be directed towards debt servicing rather than reinvestment, which reduces the incentive to commit resources to productive ventures.

This perspective is highly relevant to Nigeria, where the continuous rise in debt levels has raised concerns about fiscal sustainability. Although successive governments have relied on external borrowing to bridge budget gaps and fund development programs, the associated repayment obligations often cast uncertainty over the economy. In particular, heavy debt servicing costs may slow capital formation, as potential investors worry about reduced future returns.

Empirical studies back up this theoretical view. For instance, Ebhotemhen (2020) finds that Nigeria's external debt dynamics have constrained investment, consistent with a debt-overhang effect. Their results reinforce the debt overhang argument, which stresses that poorly managed borrowing can undermine long-term economic progress.

By adopting the Debt Overhang Theory, the present study examines not only the direct effect of external debt on Nigeria's growth but also considers how institutional quality may shape or moderate these outcomes in the wider macroeconomic environment.

3.1 Model Specification

The theoretical underpinning is based on the Debt Overhang Framework, which emphasizes the potential adverse effects of debt accumulation on economic growth. This study adopts a modified Cobb-Douglas production function framework to investigate the relationship between external debt and economic growth in Nigeria, with a specific focus on the moderating effect of institutional quality. The standard Cobb-Douglas production function is expressed as:

$$Y\tau = A_\tau \, K_\tau^\alpha L_\tau^\beta \quad (3.1)$$

Where: Y_t = Real Gross Domestic Product (proxy for economic growth); A_t = Total Factor Productivity (TFP); K_t = Capital stock (proxied by gross capital formation); L_t = Labor input; α, β = Output elasticities of capital and labor, respectively

In traditional models, A_t is assumed to be exogenous. However, following the work of Fosu (1999), Eberhardt and Presbitero (2015), and Gomez-Puig and Sosvilla-Rivero (2017), this study assumes that TFP is influenced by macroeconomic variables such as external debt, debt servicing, and institutional quality. Hence, productivity is modeled as:

$$A_\tau = f(EXD_{\tau,} EXDS_{\tau,} ISQ_\tau) \quad (3.2)$$

Substituting Equation (3.2) into Equation (3.1), we obtain:

$$Y_\tau = f\left(EXD_{\tau,} EXDS_{\tau,} ISQ_\tau\right) \cdot K_\tau^\alpha \cdot L_\tau^\beta \quad (3.3)$$

Taking the natural logarithm of both sides to linearize the equation:

$$lnY_\tau = lnA_\tau + \alpha lnK_\tau + \beta lnL_\tau) \quad (3.4)$$

Given that reliable and consistent labor data are often unavailable for Nigeria across the entire study period, the labor input term (lnL_τ) is dropped, as adopted in similar studies (Fosu, 1999; Eberhardt & Presbitero, 2015). Therefore, the model becomes:

$$lnRGDP\tau = \beta_o + \beta_1 \, lnGCE_\tau + \beta_2 EXD_\tau + \beta_3 EXDS_\tau + \beta_4 ISQ_\tau + \epsilon_\tau \quad (3.5)$$

To test the moderating role of institutional quality on the relationship between external debt and economic growth, an interaction term between external debt and institutional quality is introduced.

The log-linear estimation form and the final model are specified as:

$$lnRGDP\tau = \beta_o + \beta_1 \, lnGCE_\tau + \beta_2 EXD_\tau + \beta_3 EXDS_\tau + \beta_4 ISQ_\tau + \beta_5 EXD_\tau * ISQ_\tau + \epsilon_\tau \quad (3.6)$$

GDP_t = Real Gross Domestic Product (proxy for economic growth)

EXD_t = External debt-to-GDP ratio

$EXDS_t$ = External debt servicing as a percentage of GDP

ISQ_t = Institutional quality index

GCE_t = Government Capital Expenditure (investment proxy)

EXDt×ISQt = Interaction term capturing the moderating effect of institutional quality on external debt

Estimation Procedure

The study applies Fully Modified Ordinary Least Squares (FMOLS) to estimate long-run relationships. FMOLS is appropriate for non-stationary time-series data that are cointegrated,

as it corrects for both serial correlation and endogeneity. This ensures unbiased and consistent long-run parameter estimates for the 1986–2024 period.

3.2 Source of Data

The study relies exclusively on secondary time series data spanning from 1986 to 2025. Data were sourced from reputable and internationally recognized databases: the World Bank's World Development Indicators (WDI) for Real GDP, Government Capital Expenditure, External Debt, and Debt Servicing figures. Worldwide Governance Indicators (WGI) for Institutional Quality dimensions: control of corruption, government effectiveness, and political stability. All data points were extracted at an annual frequency to maintain consistency and comparability.

3.3 Measurement of Variable

Table 1: ***Measurement of Variables***

Variable	Description	Measurement/Proxy	Expected Sign
Real GDP (RGDP)	Economic growth indicator	Log of annual real GDP at constant local currency	Dependent variable
External Debt (EXD)	Stock of external debt relative to economic size	Total external debt as a percentage of GDP	Positive or negative
Debt Servicing (EXDS)	Annual repayment burden of external debt	External debt service payments as % of GDP	Negative
Institutional Quality (ISQ)	Control of Corruption, Government Effectiveness, Political Stability, Accountability, Regulatory Quality, and Rule of Law	Average of six WGI indicators	Positive
Government Capital Expenditure (GCE)	Proxy for domestic investment contributing to output	Log of Government Capital Expenditure	Positive
Interaction Term (EXD × ISQ)	Moderating role of institutional quality on the effect of external debt	Multiplicative term: EXD * ISQ	Positive or neutral

Source: Author's computation

4. DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

Table 2

Descriptive Statistics of Key Economic Variables

Variable	Mean	Median	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera (p)
LNRGDP	4.59	4.59	4.24	4.89	0.23	0.00	1.39	4.24 (0.12)
LNGCE	0.51	0.09	0.05	5.12	1.34	2.95	10.02	136.68 (0.00)

EXD	37.55	31.41	12.96	103.10	21.76	1.92	6.15	40.13 (0.00)
EXDS	3.03	2.05	0.50	9.20	2.51	1.35	3.71	12.73 (0.00)
ISQ	1.15	1.23	0.64	1.43	0.22	-0.59	2.11	3.52 (0.17)
EXD_ISQ	40.43	40.22	15.16	95.33	16.38	1.30	5.63	22.27 (0.00)

Note. Std. Dev. = Standard Deviation; ISQ = Institutional Quality; EXD = External Debt; EXDS = External Debt Servicing; EXR = Exchange Rate; GCF = Gross Capital Formation.
Source. Computation using *EViews* Software, 2025.

The descriptive statistics shed light on how the study variables are distributed and how much they fluctuate over time. For real GDP (LNRGDP), the mean stands at 4.58 while the median is 4.59, showing that the values are closely aligned and fairly balanced. The skewness is almost zero (0.001), and with a standard deviation of only 0.23, the series appears quite stable with minimal fluctuations. The Jarque–Bera normality test produces a p-value of 0.12, indicating that LNRGDP can be considered approximately normally distributed.

Capital expenditure (LNGCE), however, presents a different picture. While the mean is 0.51, the median is just 0.09, suggesting that a few unusually high values have pulled the average upward. This impression is reinforced by the high skewness of 2.95 and kurtosis of 10.02, pointing to the presence of extreme outliers. The Jarque–Bera test strongly rejects normality here, with a p-value of 0.000.

External debt (EXD) also shows evidence of skewness and variability. The mean is 37.55, compared to a median of 31.41, and a positive skewness of 1.92, together with a large standard deviation of 21.76, highlights considerable dispersion. With a kurtosis of 6.15, the data have heavy tails, meaning extreme values are more common. The normality test again confirms non-normal distribution with a p-value of 0.000.

Debt servicing (EXDS) records a mean of 3.03 and a median of 2.05. The series is positively skewed (1.35) and moderately dispersed with a standard deviation of 2.51. Its kurtosis value of 3.71 suggests some heavy-tailed behavior, and the Jarque–Bera test ($p = 0.0017$) confirms that the series deviates from normality.

Institutional quality (ISQ) behaves more consistently compared to the financial variables. The mean is 1.15 and the median is 1.23, with a slight negative skew (-0.59) and a relatively low standard deviation of 0.22. With a kurtosis of 2.11 and a Jarque–Bera p-value of 0.17, the distribution is fairly close to normal, suggesting relative stability in institutional indicators.

Lastly, the interaction term (EXD_ISQ) has a mean of 40.42 and a median of 40.22, pointing to a fairly even central tendency. Nevertheless, the data are positively skewed (1.30) with a notable spread reflected in the standard deviation of 16.38. A kurtosis of 5.63 and a Jarque–Bera p-value of 0.000 confirm the presence of heavy tails and a non-normal distribution.

Figure 1:
Trend Analysis

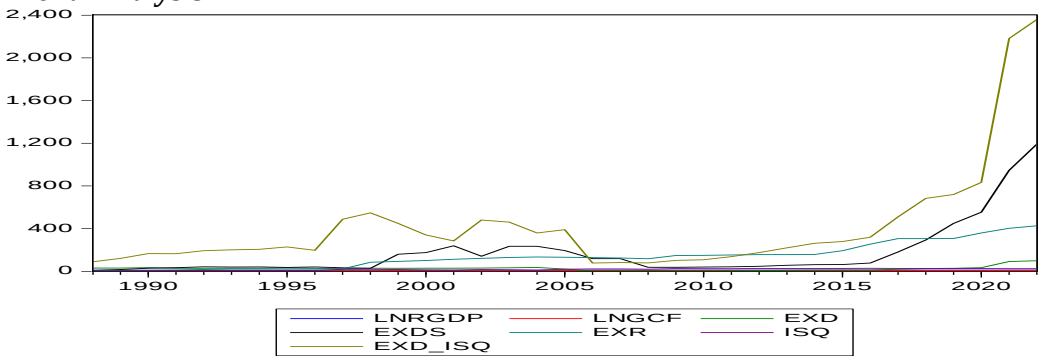

Table 3
Augmented Dickey-Fuller Unit Root Test Results for All Variables

Variable	ADF Statistic (Level)	p-Value (Level)	ADF Statistic (1st Diff.)	P-Value (1st Diff.)	Status
LNRGDP	-3.160	0.121	-3.858	0.024	I(1)
LNGCE	-1.935	0.608	-7.349	0.000	I(1)
EXD	-2.192	0.481	-5.381	0.001	I(1)
EXDS	-2.241	0.454	-4.461	0.005	I(1)
ISQ	-2.635	0.268	-6.136	0.000	I(1)
EXD × ISQ	-2.476	0.338	-8.266	0.000	I(1)

Note. ADF = Augmented Dickey-Fuller test; EXD = External Debt; EXDS = External Debt Servicing; ISQ = Institutional Quality; EXR = Exchange Rate; GCE = Government Capital Expenditure. I(1) indicates stationarity at the first difference.
Source. Computation using *EViews* Software, 2025

Table 1 reports the outcome of the Augmented Dickey–Fuller (ADF) unit root test, which was employed to assess whether the data series is stationary. At their original levels, the ADF test statistics for all variables are found to be higher (less negative) than the 5% critical values, with associated p-values above 0.05. This suggests that none of the series is stationary in its level form. However, once the variables are differenced once, the ADF statistics become more negative than the critical values, while the p-values fall below the 0.05 threshold. This provides evidence that each of the variables is stationary after first differencing, implying that they are integrated of order one, I(1). Given this result, the data qualify for cointegration testing, and the Johansen procedure is considered appropriate to explore the existence of possible long-run relationships among the variables in the model.

Tables 4:
VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-305.90	NA	1.35	17.33	17.59	17.42
1	-119.80	299.83	0.00	8.99	10.84	9.63
2	-47.85	91.94*	0.00	6.99	10.42*	8.19
3	0.60	45.75	4.47e-05*	6.30*	11.32	8.05*

Source. Computation using *EViews* Software, 2025.

Table 3 shows the results of the lag length selection test for the Vector Autoregression (VAR) model. The table reports different statistical criteria used in choosing the appropriate lag order. From the results, most of the criteria—namely AIC, FPE, LR, and HQ—suggest that two lags provide the best fit, as indicated by the asterisks. Therefore, Lag 2 is adopted as the optimal lag length for estimating the VAR model.

Co-integration Test

Table 5:

Unrestricted Cointegration Rank Test (Trace Test)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Probability (p)
None*	0.86	174.06	95.75	0.00
At most 1*	0.76	100.60	69.82	0.00
At most 2	0.47	47.42	47.86	0.05
At most 3	0.31	23.59	29.80	0.22
At most 4	0.23	10.12	15.49	0.27
At most 5	0.02	0.59	3.84	0.44

Note. * indicates rejection of the null hypothesis at the 0.05 significance level.

Unrestricted Cointegration Rank Test (Maximum Eigenvalue Test)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Probability (p)
None*	0.86	73.46	40.08	0.00
At most 1*	0.76	53.17	33.88	0.00
At most 2	0.47	23.83	27.58	0.14
At most 3	0.31	13.47	21.13	0.41
At most 4	0.23	9.53	14.26	0.24
At most 5	0.02	0.59	3.84	0.44

Note. * indicates rejection of the null hypothesis at the 0.05 significance level.

Source. Computation using *EViews* Software, 2025.

The Johansen cointegration test helps to determine whether several time-series variables share a common long-run relationship. It applies two approaches: the Trace Test and the Maximum Eigenvalue Test.

From the Trace Test, the null hypothesis of no cointegration is strongly rejected since the test statistic (174.06) is well above the 5% critical value (95.75) with a p-value of 0.000. The test also rules out the case of only one cointegrating equation, as the statistic (100.60) exceeds its critical value of 69.82, also with a p-value of 0.000. However, for the hypothesis of at most two cointegrating equations, the result is marginal—the statistic of 47.42 falls just below the critical value of 47.86, with a p-value of 0.0549. This outcome suggests that two long-run relationships are present among the variables.

The Maximum Eigenvalue Test leads to a similar conclusion. It rejects the hypothesis of no cointegration (73.46 > 40.08, p = 0.000) and the presence of only one cointegrating equation (53.17 > 33.88, p = 0.0001). Yet, it does not reject the case of at most two cointegrating equations, as the statistic (23.83) is below the critical value of 27.58 with a p-value of 0.1409. Taken together, both tests indicate the existence of two cointegrating vectors at the 5% level, suggesting that the variables share a stable long-term equilibrium relationship.

Table 6:
Fully Modified Least Squares (FMOLS) Regression Results for Real GDP (RGDP)

Variable	Coefficient	Std. Error	t Statistic	p-value
GCE	0.045	0.034	1.330	0.093
EXD	-0.014	0.009	1.510	0.142
EXDS	-0.006	0.014	-0.390	0.703
ISQ	1.435	0.381	3.770	0.031
EXD × ISQ	0.041	0.010	1.090	0.028
(C)	6.299	0.407	15.480	0.011

Model statistics:
$R^2 = 0.822$, Adjusted $R^2 = 0.794$, Standard Error of Regression = 0.102

Note: GCE= Gross Capital Expenditure, EXD= External Debt, EXDS= External Debt Servicing= Institutional Quality (ISQ), EXD × ISQ=Interaction.
Source. Computation using *EViews* Software, 2025

The study applied the Fully Modified Least Squares (FMOLS) regression technique to assess the long-run link between Real Gross Domestic Product (RGDP) and selected macroeconomic variables covering the period 1986–2024. The variables considered include gross capital expenditure, external debt, debt servicing, institutional quality, and an interaction term between institutional quality and external debt.

A key outcome of the analysis is the strong and highly significant contribution of institutional quality (ISQ) to economic growth. With an estimated coefficient of about 1.43 and a p-value well below 1%, the evidence clearly indicates that improvements in governance, political stability, and the fight against corruption have a substantial positive effect on GDP in the long run. This result reinforces the argument that sound institutions create the enabling environment for sustainable growth. Similar evidence comes from Subramanian and Trebbi (2020) and Alesina et al. (2022), who show that strong rule of law and transparent governance enhance investment flows and help economies rebound more quickly from shocks. Recent JEAR findings further support this: Nwala and Saleh (2023) and Rufai and Dakyong (2024) highlight that debt can only be growth-enhancing in Nigeria when institutions are effective.

By comparison, gross capital expenditure (GCE) was associated with a small positive coefficient (approximately 0.045), but this relationship was not statistically significant. This suggests that while investment in capital projects may contribute to output growth, the impact is not strong enough to be definitive over the long term. Yusuf et al. (2024) similarly observed that Nigeria's capital formation is constrained by weak debt management and institutional bottlenecks. Both external debt (EXD) and debt servicing (EXDS) were associated with small negative coefficients, but insignificant. This implies that borrowing has not consistently translated into growth, likely due to sub-optimal use of borrowed funds. Earlier JEAR studies such as Bashir (2019) and Ebhotemhen (2020) underscore that external borrowing often undermines Nigeria's investment performance when governance is weak. Comparable cross-country evidence also supports this view: Manasseh et al. (2022) and Sandow (2022) report that in Sub-Saharan Africa, external borrowing only supports growth when accompanied by robust governance frameworks and strong public-sector management. In line with this, Pattillo, Poirson, and Ricci (2023) report that although debt can be a tool for development financing, excessive or poorly managed debt often undermines growth prospects, particularly in institutions with weak governance. Institutional quality (ISQ), in contrast, exhibits a strong positive and significant influence on growth, in line with Amu et al. (2025), Oyeoka et al. (2024), and Ubi and Eba (2018), emphasizing that governance quality is crucial for maximizing the developmental benefits of external resources. The interaction between external debt and

institutional quality (EXD_ISQ) was positive and significant, indicating that while external debt alone may be growth-constraining, strong institutions can offset this effect. This corroborates the findings of Ojonye et al. (2024) and Daba Ayana et al. (2023), who stressed that effective governance and transparency in debt management are essential for debt to contribute positively to growth. The broader SSA evidence from Agyeman et al. (2022) also stresses that without institutional discipline, external borrowing risks being undermined by capital flight and poor fiscal management.

Overall, the FMOLS model explained about 82% of the variation in RGDP, which is relatively strong for macroeconomic time-series data. This gives confidence that institutional quality is a key long-run driver of Nigeria's growth performance. From a policy perspective, the findings underline the importance of strengthening institutions through transparency, effective rule of law, and anti-corruption measures as a foundation for long-term growth. This finding supports the arguments of Ojonye et al. (2024) and Daba Ayana et al. (2023), highlighting that effective governance and transparent debt management are essential for debt to contribute positively to economic growth.

Overall, the results reinforce the notion that Nigeria's growth trajectory is shaped less by the magnitude of external debt or repayment burdens and more by the quality of institutions that govern resource utilization and policy implementation. At the same time, there is a need for deeper inquiry into how capital expenditure and external debt can be better harnessed to support the economy more effectively.

5. Conclusion and Recommendation

This research highlights that institutional quality plays a pivotal role in driving Nigeria's long-term economic growth. Results from the FMOLS analysis reveal a strong and statistically significant positive link between institutional quality and real GDP, showing that better governance, stronger rule of law, and effective corruption control are essential for sustained growth. On the other hand, gross capital expenditure and external debt, though carrying the expected signs, were not statistically significant, implying that in the absence of sound institutions, investment and borrowing alone may fail to yield the desired growth outcomes. The interaction between external debt and institutional quality was positive but insignificant, reinforcing the importance of deeper institutional reforms to.

To translate these insights into action, the following **agency-specific policy recommendations** are proposed:

- **Strengthen Governance and Anti-Corruption Frameworks**
  Lead institutions: Economic and Financial Crimes Commission (EFCC), Independent Corrupt Practices and Other Related Offences Commission (ICPC), National Assembly.
  These bodies should intensify oversight of public finance and debt utilisation through stronger anti-corruption enforcement and transparent budgetary processes.
- **Enhance Debt Management Capacity**
  Lead institution: Debt Management Office (DMO), in collaboration with the Federal Ministry of Finance and the Central Bank of Nigeria (CBN).
  Develop and implement a medium-term debt strategy that limits exposure to costly debt, ensures that borrowing is linked to clearly prioritised development projects, and regularly publishes comprehensive debt sustainability analyses.
- **Improve the Efficiency of Capital Spending**
  Lead institutions: Budget Office of the Federation, National Planning Commission.
  Adopt rigorous project selection criteria and independent monitoring to ensure that capital expenditure delivers measurable productivity gains.
- **Integrate Institutional Reform with Macroeconomic Policy**

Lead institutions: Federal Ministry of Finance, Budget and National Planning; Central Bank of Nigeria.
Embed institutional reforms such as fiscal transparency and rule-based monetary policy within broader fiscal and monetary strategies to reinforce macroeconomic stability.

- **Promote Evidence-Based Policy through Continuous Monitoring**
  Lead institutions: National Bureau of Statistics (NBS), research institutes and universities.
  Establish a permanent framework for tracking the interaction between institutional quality, debt indicators and growth, to guide timely policy adjustments.

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